

Notice of Allowability

Application No.

10/688,243

Examiner

Ardith E. Hertzog

Applicant(s)

SCHIELD ET AL.

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed November 8, 2004.
2. ☒ The allowed claim(s) is/are 11-20, now numbered 1-10, respectively.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The amendment filed November 8, 2004 has **overcome** the objection to the disclosure, as set forth in paragraph 7. of the prior Office action with mailing date September 1, 2004 (hereinafter "the 9/1/04 action"). The amendment has **also overcome** the 35 U.S.C. § 102(b)/103(a) rejection of claims 11, 16 and 19 based upon WO 97/29834 (hereinafter "Plummer et al."), as set forth in paragraph 10. of the 9/1/04 action, since Plummer et al. only teach **cyclic** carbonates, a "scavenging agent" species no longer within the scope of these claims. **In addition**, applicant's arguments concerning the remaining prior art rejections made in the 9/1/04 action have been carefully considered and found **persuasive**, especially in light of the three specification references accompanying the amendment (each of which has been officially cited via the enclosed PTO-892) in support thereof. **Accordingly**, the 35 U.S.C. § 102(b) rejection of claims 11, 12, 19 and 20 as being anticipated by Roof (US 5,552,060); the 35 U.S.C. § 102(b)/103(a) rejection of claims 17 and 18 based upon Roof; and the 35 U.S.C. § 103(a) rejection of claims 11, 12 and 16-20 as being unpatentable over the instant specification, pages 1 - 2, paragraphs [0002] - [0006] and [0008], in view of Roof, as set forth in, respectively, paragraphs 8., 9. and 11.-12. of the 9/1/04 action, have **each** been **withdrawn**, since it is now **agreed** that these rejections cannot properly be made against these claims of applicant. In particular, with respect to the aforementioned 35 U.S.C. § 102(b) rejection, applicant urges:

All of the pending claims herein require *molten sulfur*, as that term is commonly understood in the industry, as part of the composition. The

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single Roof reference does not disclose this limitation of the claim. Because Roof does not teach each and every limitation of the claim, Roof does not anticipate any of the pending claims.

The term "molten sulfur" as used in the claims and specification herein simply has the meaning commonly used in the industry, which means predominantly elemental sulfur in the liquid or molten state, that is, its ordinary, customary meaning. To contend otherwise, the Applicants respectfully submit, does violence to the term and introduces confusion to the prosecution issues herein, it is respectfully submitted. (remarks accompanying applicant's amendment at p. 9, third-fourth paragraphs, emphasis added)

Moreover, in support of the above arguments, applicant points to two of the specification references submitted with the amendment (again, now cited on the enclosed PTO-892), as well as several patents already of record (see remarks accompanying applicant's amendment at p. 9, last paragraph). **Furthermore**, with respect to the Dooher et al. and Schulz references newly cited with the 9/1/04 action, applicant urges that:

#6 fuel oil is *not supposed to have sulfur in it* as noted in the attached ASTM d 396-02a Standard Specification for Fuel Oils (November 2002, see particularly Table 1, page 2 [(again, now cited on the enclosed PTO-892))]. It is respectfully submitted that Roof demonstrates this. A fuel oil [(i.e., as generally taught by Roof and used in each of the Roof Examples previously relied upon by the examiner)] is a petroleum product that consists predominantly or primarily of carbon, *not elemental sulfur*. (remarks accompanying applicant's amendment in paragraph bridging pp. 10-11, emphasis added)

That is, as convincingly concluded by applicant:

[T]he Examiner's assertion that there is sulfur present in Roof's hydrocarbon substrates... is factually unfounded. Roof does **not** teach the presence of sulfur. **Dooher, et al. and Schulz, et al. are contradicted by ASTM D396-02a which specifies *no sulfur in #6 fuel oil*.** (remarks accompanying applicant's amendment at p. 11, last full paragraph, emphasis added)

Thus, since it is now **agreed** that Roof fails to teach or to have suggested "**molten sulfur composition[s]**" (emphasis added), per all instant claims (it being reiterated that the

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examiner now agrees that the Roof compositions, since “aqueous and hydrocarbon substrates”, cannot be assumed to (inherently) contain molten sulfur), it must **also** be **agreed** that Roof fails to teach or to have suggested “molten sulfur **contaminated with at least one sulfhydryl compound**” (emphasis added)—namely, component a) **required** by all instant claims (per remarks accompanying applicant’s amendment in paragraph bridging pp. 11-12). **Hence**, as it is now **agreed** that the 35 U.S.C. § 102(b) rejection of claims 11, 12, 19 and 20 as being anticipated by Roof (US 5,552,060) can no longer be maintained, it is **also agreed** that the 35 U.S.C. § 102(b)/103(a) rejection of claims 17 and 18 based upon Roof can no longer be maintained, given its explicit reliance upon Roof in accordance with said 35 U.S.C. § 102(b) rejection (i.e., as set forth in the 9/1/04 action, paragraph 9.). **Lastly**, it is **also agreed** that the 35 U.S.C. § 103(a) rejection of claims 11, 12 and 16-20 as being unpatentable over the instant specification, pages 1 - 2, paragraphs [0002] - [0006] and [0008], in view of Roof can no longer be maintained, since, as stressed by applicant:

[T]he Examiner has not answered why one having *ordinary* skill in the art in would expect Roof’s epoxides to successfully inhibit the evolution of H₂S **from molten sulfur** when all that Roof teaches is a method for scavenging H₂S **from aqueous or hydrocarbon substrates that do not contain sulfur**. (remarks accompanying applicant’s amendment in sentence bridging pp. 20-21, bold emphasis added)

That is, it is now **agreed** that the combination in the aforementioned § 103 rejection would have been, at best, obvious to **try**, rather than the proper § 103 motivation of obvious to **do** (per remarks accompanying applicant’s amendment at p. 21, last full paragraph). **Thus**, as the prior art of record fails to teach or to have suggested “molten sulfur composition[s] having the evolution of hydrogen sulfide (H₂S) therefrom inhibited”, instant claims 11-20

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must now be deemed allowable over this prior art.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

3. Any inquiry concerning this communication or any earlier communications from the examiner should be directed to Ardith E. Hertzog at telephone number (571) 272-1347. The examiner can normally be reached on Monday through Friday (from about 8:00 a.m. - 4:00 p.m.).

4. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman, can be reached at (571) 272-1358. The fax phone number for the organization where this application is assigned is 703-872-9306.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. For any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


AEH
December 23, 2004


STANLEY S. SILVERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700